

ABSTRACT OF THE DISCLOSURE

Methods and systems are disclosed for providing secure transmissions across a network comprising a transmitting device and a receiving device. At the transmitting device, a stream of watermark bits is generated. Next, a plurality of watermarks is generated, each of the plurality of watermarks comprising an index number and a portion of the stream of watermark bits. The watermarks are inserted into each header of a plurality of outgoing packets. At the receiving device, the plurality of outgoing packets are received and it is determined if a received packet is valid based on the watermark in the header of the received packet. The stream of watermark bits may be generated using a stream cipher such as RC4, a block cipher such as 3DES in CBC mode, or other equivalent pseudo-random stream generating techniques.